

ZMEEWB7-ZW-ZB
ZMEEWB7-ZW-ZB-KNX



WrenBoard 7 full manual
<https://z-wave.me/manual/wireboard-7>

wireboard

Z-WAVE>ME
BUILDS THE SMART HOME

Z-WAVE.ME WIREN BOARD 7 USER MANUAL



Zigbee

Z-Wave

Power

Mod Out 2

2x Ethernet

Mod Out 3

2x USB-C: Debug console + network

KNX**

Status LED

Socket for input/output module

1x MicroSD

3x AI/DI/DO

5V out

1x DI/DO

1-Wire

Modem GSM*
4G/NB-IoT (2x SIM)

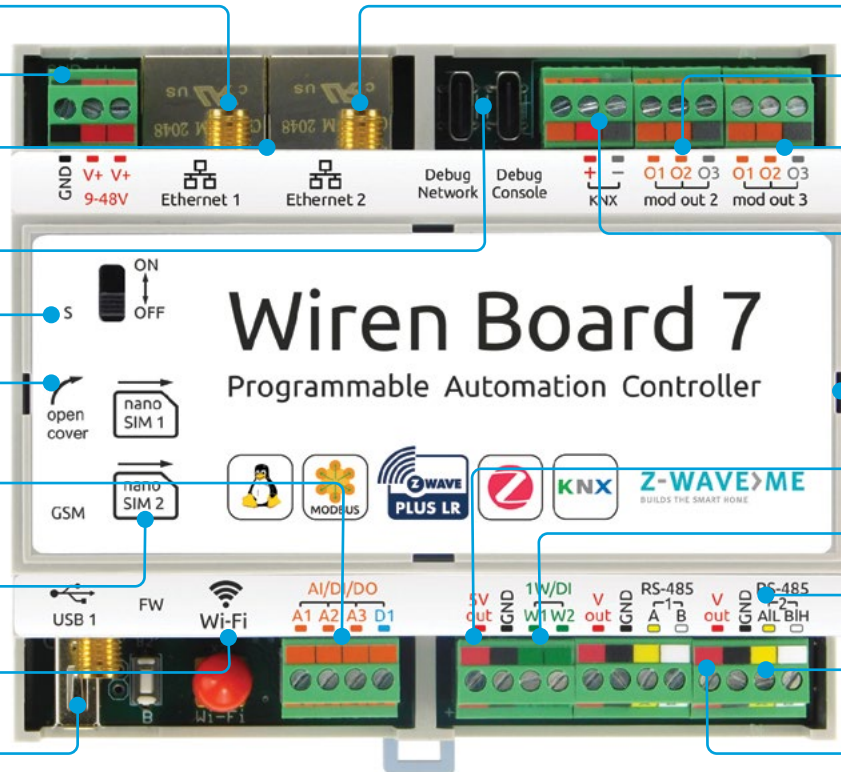
CAN

Wi-Fi/BLE

2x RS-485

USB Host

V out



*not included

**only for model ZMEEWB7-ZW-ZB-KNX with built-in KNX

PRODUCT DESCRIPTION

WirenBoard 7 is a modular programmable controller for automation of apartments, houses and offices. The controller can work with wired and wireless sensors and actuators. Support for the Z-Wave™ and Zigbee wireless home automation protocols is provided by a special expansion board and Z-Way software by the Z-Wave.Me. The controller has passed Z-Wave certification, which guarantees compatibility with all certified Z-Wave devices.

The main advantages of the controller:

- open HTTP/JS/C API for interacting with devices
- integration with iRidi visualization systems
- mobile apps for iOS, Android
- integration with other smart home systems, like HomeAssistant, OpenHAB, NodeRed, etc.
- voice assistants: Google Assistant, Amazon's Alexa, Apple's Siri
- scripts allows you to implement flexible house management rules, create schedules, run scenarios
- full information about the capabilities of devices, about routes in the network, convenient diagnostic

tools for the Z-Wave network

- secure remote access for management from anywhere in the world without using a static IP

The WirenBoard 7 controller contains the 7th generation Z-Wave chip, which provides the following modern features:

- direct line of sight transmission distance of 1.6 km in Z-Wave Long Range mode
- Smart Start for a trouble-free deployment of a big installation
- high data transfer rate of 100 kb/sec allows you to transfer data faster, it saves battery power
- the Z-Wave Plus™ v2 certification standard guarantees compatibility of devices from different manufacturers
- mandatory for all devices, S2 encryption protects against listening to the radio

The WirenBoard 7 also contains an EFR32MG21 chip, which provides communication with Zigbee and Thread.

KNX, Z-WAVE, ZIGBEE

The controller supports simultaneous operation in wireless Z-Wave and Zigbee networks and wired KNX network. This allows you to combine different automation technologies and benefit from a large number of different devices available for your smart home project.

KNX is designed for installation in large houses due to the reliability of the wired connection.

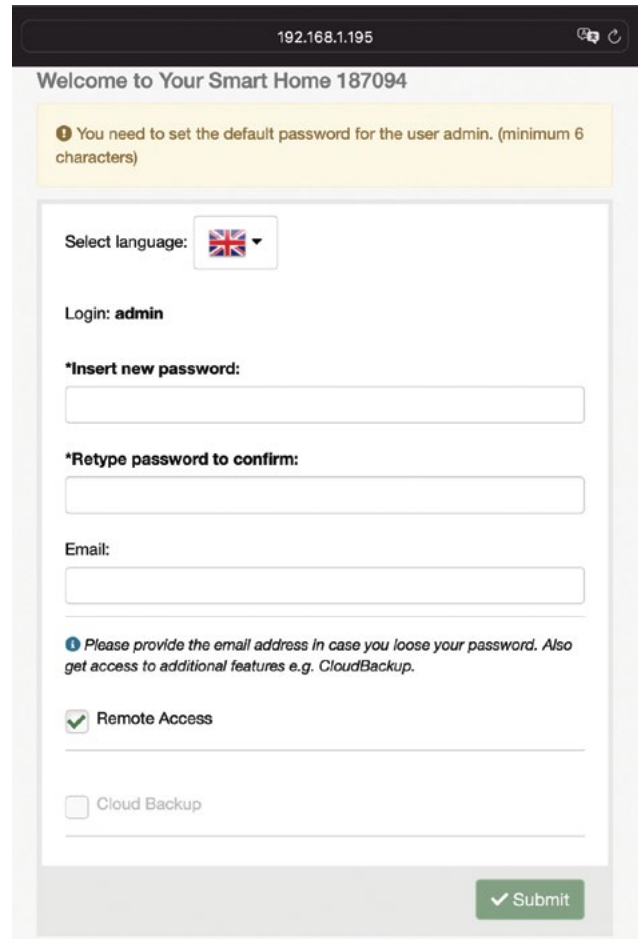
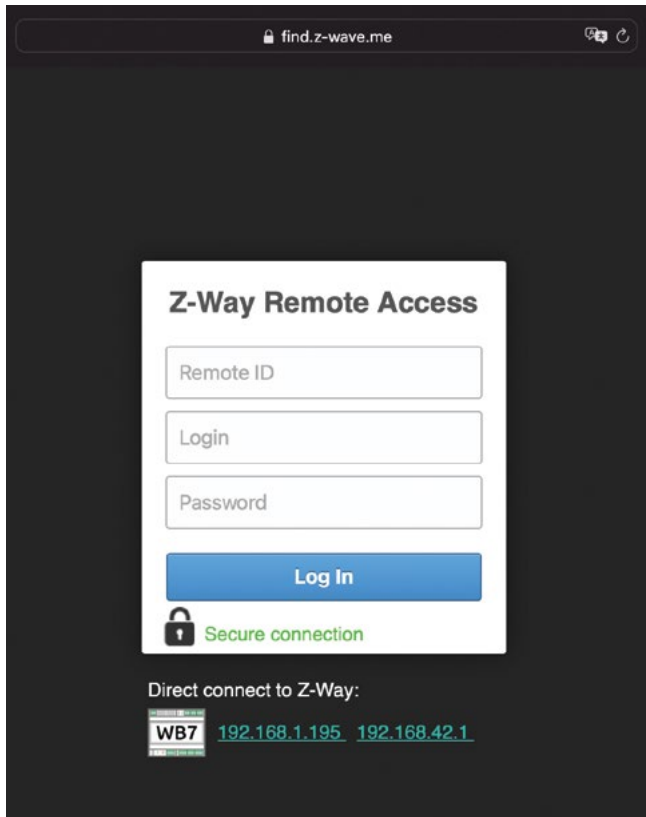
Z-Wave allows retrofit installations as well as extending KNX installations with high-quality and functional devices.

Zigbee opens the door to a broad range of inexpensive devices.

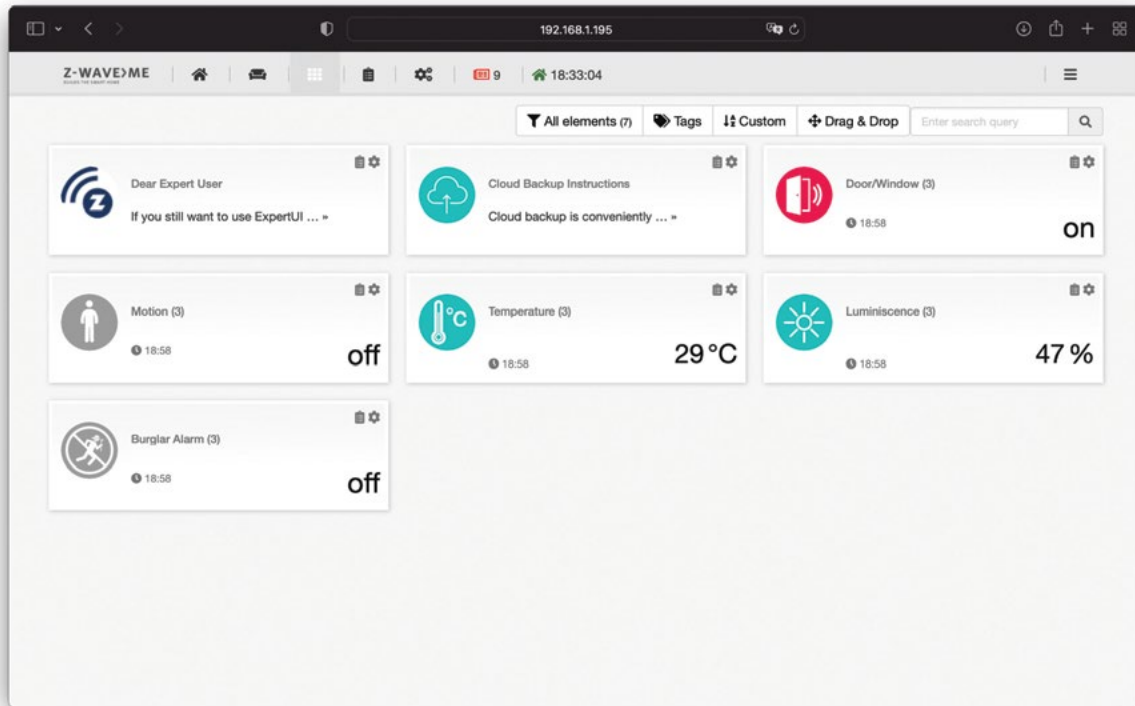


INSTALLATION GUIDELINES

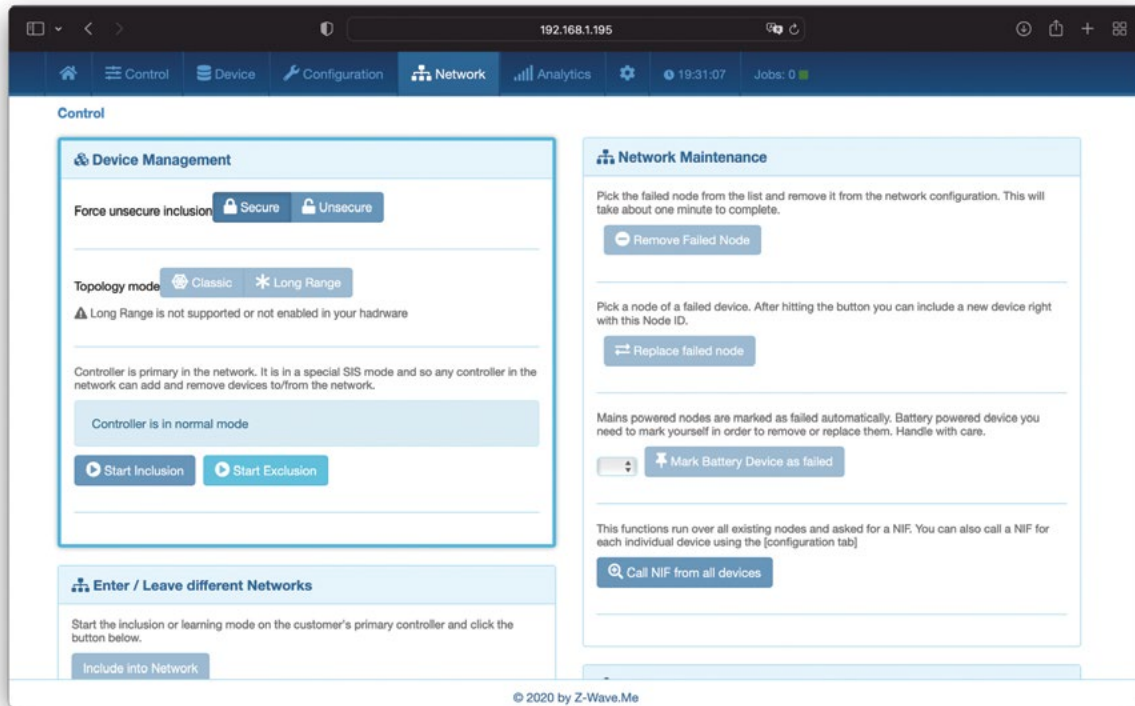
- Connect the ethernet cable to the connector Ethernet 1
- Connect the 9–48V power supply to the terminals GND and V+
- Turn on the switch on the lid
- Wait for the controller to load, the indicator will flash green
- Go to <https://find.z-wave.me> to find out the IP address of the controller in your local network.
- Also, you can view the IP address of the controller on the router
- In local network go to the controller address <http://IP:8083>
- When you first log in, set the administrator password and email
- It is recommended to change the SSH access credentials.
- By default login: root, password: wirenboard. To change it connect via SSH, enter the password command and enter the new password twice.



OPERATING THE DEVICE



SmartHome UI is the main web interface for working with Z-Wave devices. SmartHome UI is used to manage devices and configure home automation scenarios.



Expert UI is designed for advanced setup of Z-Wave devices.

Allows you to get complete information about the Z-Wave network, to diagnose and optimize.

The screenshot displays the WireBoard web interface. The top navigation bar includes the 'wireboard' logo, a search icon, a refresh icon, and a user status indicator showing 'Access level: Administrator' and 'Connected'. The left sidebar contains a menu with options: Home, Dashboards, Devices, Widgets, History, Rules, Settings, Configs, Web UI, System, MQTT Channels, Change access level, Logs, and Help.

The main content area is divided into several panels:

- Alarms**: A search bar containing the text 'log'.
- HW Monitor**: A table showing temperature readings:

Board Temperature	31.75	°C
CPU Temperature	62.15	°C
- metrics**: A link to view system metrics.
- Power status**: Shows 'Vin' at 13.7 V and 'working on battery' with an 'OFF' toggle.
- ADCs**: A link to view ADC settings.
- 1-wire Thermometers**: A link to view 1-wire thermometer data.
- Z-Wave**: A table showing battery and tamper status:

Battery Polling 7	100	%
Philio Technology Corp Battery (3) 3-0-128	100	%
Tamper (3) 3-0-48-8		ON
- Buzzer**: Controls for the buzzer, including an 'enabled' toggle (OFF), a 'frequency' slider set to 3000, and a 'volume' slider set to 10.
- knx**: Shows 'data' as 'i:0/0/0 i:0/0/0'.
- Network**: A link to view network settings.
- System**: A link to view system settings.
- Relays & FETs**: A list of outputs with 'OFF' toggles:

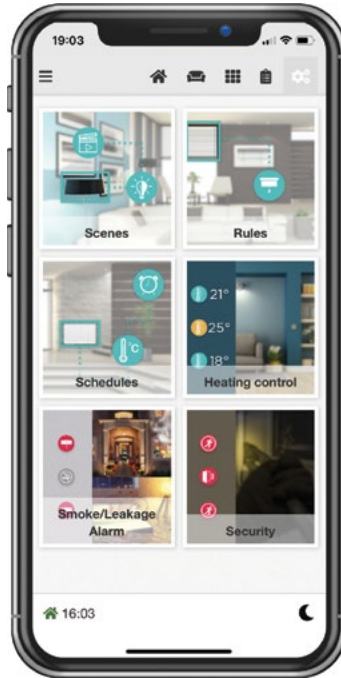
A1_OUT	OFF
A2_OUT	OFF
A3_OUT	OFF
D1_OUT	OFF
A1_IN	OFF

WireBoard UI is used to work with wired peripherals, manage system settings and configure hardware inputs/outputs.

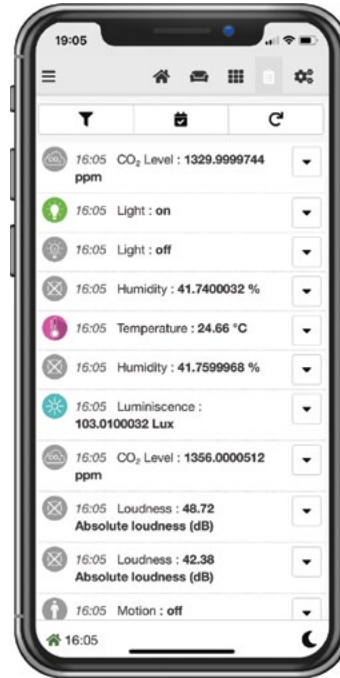
MOBILE APP



Dashboard



Automation



Events



TECHNICAL DETAILS

General	CPU	ARM Cortex A7 4 core 1.2 GHz
	RAM	DDR3 RAM 2 GB
	FLASH	64 GB TLC BiCS5
Dimensions	Width, DIN-units	6
	Sizes (H x W x D)	106 x 90 x 58 mm
	Weight (with box)	235 g
Operating conditions	Air temperature	0 ... +75 °C
	Humidity	Up to 92%, without condensation of moisture
	Warranty period	2 years
	Service life	5 years
Interfaces	KNX	1 — only for ZMEEWB7-ZW-ZB-KNX
	RS-485	2
	CAN	1 — multiplexed with one of RS-485
	microSD slot up to 25 MB/s	1
	Wx ports: 1-Wire interface/digital input	2
	Ax ports: digital/analog input and output "open collector"	3
	Port D1: digital input/output "open collector"	1

Communications	Ethernet 10/100	2 (the first of the ports with Passive PoE)
	USB Host (USB-A)	1
	Debug Network (USB-C)	USB network card for quick configuration of the controller. Important: When the port is connected to the computer, USB 1 is disconnected
	Wi-Fi 802.11n	1 AP, client
	Bluetooth 4.0	1
	Z-Wave	700 Series Chip 868.42 MHz
	Zigbee	MG21 Series Chip 2.4 GHz (can be converted to BLE or Thread, Matter ready)
	SIM-cards	2 x SIM, one is online at the same time
Power	Voltage	9–48 V DC
	Power consumption	3 W
	Power scheme	from a high voltage input
	Power inputs	2 on the terminals, 1 Passive PoE on the first Ethernet port
Outputs for powering external devices	Vout	The power supply voltage of the controller is applied to the terminals, but with current limitation, program shutdown and state preservation when the controller is rebooted
	5Vout	5 V — with current limitation and software shutdown
Modules	Slots for internal expansion modules	3 with terminals, 1 without terminals (two are occupied with Z-Wave and Zigbee modules, and one with KNX module)
	Other connectors	For external BIOS I/O modules, for backup power module

You can contact us using the form
on the website <https://help.z-wave.me>
or by writing to us directly by e-mail:
info@z-wave.me
support@z-wave.me

